This report is required by law (7 USC 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 21!

See attached form for additional information.

Interagency Report Control No.: 90

UNITED STATES DEPARTMENT OF AGRICULTURE
ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY
(TYPE OR PRINT)

1. CERTIFICATE NUMBER: 11-R-0006
CUSTOMER NUMBER: 75

FORM APPROVED
OMB NO. 0579-0036

University Of Maine
5717 Corbett Hall-Room 420
Orono, ME 04469

NOV 14 2005

Telephone: (b)(6), (b)(7)c

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, or experimentation, or held for these purposes. Attach additional sheets if necessary)

FACILITY LOCATIONS (Sites) - See Atached Listing

REPORT OF ANIMALS USED BY OR UNDER CONTROL OF RESEARCH FACILITY **(Attach additional sheets if necessary or use APHIS Form 7023A)**

A. Animals Covered By The Animal Welfare Regulations	B. Number of animal being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not ye used for such purposes.	C. Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use o pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals an for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery or tests were conducted involving accompanying pain or distress to the animals and for wh the use of appropriate anesthetic, analgesic, or tranquiliz drugs would have adversely affected the procedures, res or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress in these animals and the reas such drugs were not used must be attached to this report	F. TOTAL NUMBER OF ANIMALS (COLUMNS C + D + E)
4. Dogs					
5. Cats					
6. Guinea Pigs					
7. Hamsters		18			18
8. Rabbits					
9. Non-human Primates					
10. Sheep					
11. Pigs					
12. Other Farm Animals					
Horses		15			15
13. Other Animals					
Black Bears*		63			63
Seals*				89	89
nicken Embryos		64			64

ASSURANCE STATEMENTS

1) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anestetic, analgesic, and tranquilizing drugs, prior to, during, and following actual rese teaching, testing, surgery, or experimentation were followed by this research facility.

2) Each principal investigator has considered alternatives to painful procedures.

3) This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and ap Institutional Animal Care and Use Committee (IACUC). **A summary of all such exceptions is attached to this annual report.** In addition to identifying the IACUC-approved exceptions, this summary inc brief explanation of the exceptions, as well as the species and number of animals affected.

4) The attending veterinarian for this research facility has appropriate authority to ensure the provision of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL
(Chief Executive Officer or Legally Responsible Institutional Official)

(b)(6), (b)(7)c

DATE SIGNED
8 Nov. 05

RLG

This report is required by law (7 USC 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

See reverse side for additional information.

Interagency Report Control No. 0180-DOA-AN

UNITED STATES DEPARTMENT OF AGRICULTURE
ANIMAL AND PLANT HEALTH INSPECTION SERVICE

CONTINUATION SHEET FOR ANNUAL REPORT OF RESEARCH FACILITY
(TYPE OR PRINT)

1. REGISTRATION NO.

FORM APPROVED
OMB NO. 0579-0036

2. HEADQUARTERS RESEARCH FACILITY *(Name and Address, as registered with USDA, include Zip Code)*

NOV 14 2005

University of Maine
5717 Corbett Hall--Room 443
Orono, ME 04469

REPORT OF ANIMALS USED BY OR UNDER CONTROL OF RESEARCH FACILITY *(Attach additional sheets if necessary or use this form.)*

A. Animals Covered By The Animal Welfare Regulations 12. &/OR 13. Other *(List by species)*	B. Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C. Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. *(An explanation of the procedures producing pain or distress in these animals and the reasons such drugs were not used must be attached to this report).*	F TOTAL NO. OF ANIMALS (Cols. C + D + E)
Blue Whale*		1			1
		# Released	# Euthanized	# Found Dead in Trap	
Red-backed Vole*		271	1	4	276
Deer Mice*		156	0	1	157
Masked Shrew*		10	0	9	19
Eastern Chipmunk*		54	0	1	55
Red Squirrel*		14	1	0	15
White-footed Mice*		347	0	0	347
Short-tailed Shrew*		4	0	0	4
So. Flying Squirrel*		11	0	0	11
Meadow Vole*		37	0	3	40
Woodland Jumping Mice*		9	0	0	9

ASSURANCE STATEMENTS

1). Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.

2). Each principal investigator has considered alternatives to painful procedures.

3). This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC-approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.

4). The attending veterinarian for this research facility has appropriate authority to ensure the provision of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL
(Chief Executive Officer or Legally Responsible Institutional Official)
I certify that the above is true, correct, and complete (7 U.S.C. Section 2143)

SIGNATURE OF C.E.O. OR INSTITUTIONAL OFFICIAL	NAME & TITLE OF C.E.O. OR INSTITUTIONAL OFFICIAL *(Type or Print)*	DATE SIGNED

NOV 14 2005

University of Maine
11-R-0006

Facility Locations:

One site for the University of Maine includes the Small Animal Facility, the Psychology Lab, and the Witter Center (horse barn).

Animals listed with "*" were used in field studies and not housed in research facilities.

NOV 14 2005

University of Maine
Registration # 11-R-0006
Reporting of Exceptions
10/1/2004-09/30/2005

We have included this project as an exception based on our interpretation of the USDA's Reportable IACUC-Approved Exceptions (hamsters are kept in light-dark cycles, constant light, constant darkness, and brief light pulses; they are housed in commercial cages that are 5.0 inches in height, not the 5 ½ inches normally required for hamsters). If we have misinterpreted this Policy, please let us know by contacting the Office of the Institutional Animal Care and Use Committee (207/581-1498).

Approved Study Allowing Exceptions to the Standards and Regulations Under the Act:

The protocol entitled, "Effects of Ethanol on the Rodent Circadian Pacemaker" was approved on 02/16/2005. Approved number of Syrian hamsters: 148 (over three year period); number used during this reporting period: 18. Annual review of this project has not yet been conducted.

Lighting exception approved by the IACUC: animals are kept in either light-dark cycles, constant light, constant darkness, and brief light pulses for the circadian rhythm studies. Food is always freely available.

Cage size exception approved by the IACUC: the cages are standard commercial cages designed for rats that the investigator has used for much of his circadian rhythm research. The IACUC agreed that the lack of ½ inch space is not detrimental to the health and well being of the animals. The animals have free access to a 14-inch diameter running wheel, giving them 7 inches of headroom while in the wheel; the wheel is about 4.25 inches wide. Animals are held in this innovative housing for a period of several weeks to several months, depending on the circadian rhythm experiment. The IACUC approved the use of "innovative primary enclosures that do not precisely meet the space requirements, but do provide the hamsters with sufficient volume of space and the opportunity to express species-typical behavior."

NOV 14 2005

Column E Explanation

This form is intended as an aid to completing the Column E explanation. It is not an official form and its use is voluntary. Names, addresses, protocols, veterinary care programs, and the like, are not required as part of an explanation. A Column E explanation must be written so as to be understood by lay persons as well as scientists.

1. Registration Number: **11-R-0006**

2&3. Number of animals and Species (common name) used in this study:

	Total Captures	# Found Dead	# Euthanized	# Released
Eastern Chipmunk	50	1	0	49
Red Squirrel	4	0	1	3
So. Flying Squirrel	10	0	0	10
White-footed Mouse	347	0	0	347
Red-backed Vole	57	1	0	56
TOTAL	468	2	1	465

Total trapnights for August Session = 2,171

4. Explain the procedure producing pain and/or distress.

Animals are live trapped and released at capture site. A cotton nestlet is placed in each trap to occupy their time and to provide insulation. Sufficient food is placed in each trap for animals to maintain metabolism. Apple pieces are added for a source of moisture. Each trap is covered by a cedar shingle to keep the trap dry in wet weather and to keep direct sunlight off the trap. Despite these procedures, incidental mortality was expected by the investigator. Animals found dead are reported in Column E of the report, as they presumably suffered; for this year's report, one Eastern chipmunk and one Red-backed vole were found dead in the trap.

5. Provide scientific justification why pain and/or distress could not be relieved. State methods or means used to determine that pain and/or distress relief would interfere with test results. (For Federally mandated testing, see Item 6 below.)

N/A. Objectives of the study are to document population changes over a long period of time, to document habitat use, and document the effects of forest harvesting on populations and habitat use. Animals are marked, sexed, aged, weighed, and sometimes measured. They are also examined for ticks and other parasites. Animals are marked (ear tags, PIT tags, marker), so that individuals can be recognized, which is an essential component of mark/recapture studies. The IACUC will review these numbers.

6. What, if any, federal regulations require this procedure? Cite the agency, the code of Federal Regulations (CFR) title number and the specific section number (e.g., APHIS, 9 CFR 113.102): **N/A**

Agency _____ CFR _____

Column E Explanation

NOV 14 2005

This form is intended as an aid to completing the Column E explanation. It is not an official form and its use is voluntary. Names, addresses, protocols, veterinary care programs, and the like, are not required as part of an explanation. A Column E explanation must be written so as to be understood by lay persons as well as scientists.

1. Registration Number: **11-R-0006**

2&3. Number of animals and Species (common name) used in this study:

	Total Captures	# Found Dead	# Euthanized	# Released
Red-backed Vole	184	3	1	180
Deer Mice	146	1	0	145
Masked Shrew	15	7	0	8
Short-tailed Shrew	4	0	0	4
Eastern Chipmunk	5	0	0	5
Red Squirrel	11	0	0	11
So. Flying Squirrel	1	0	0	1
Meadow Vole	40	3	0	37
Woodland Jumping Mice	9	0	0	9
TOTAL	415	14	1	400

4. Explain the procedure producing pain and/or distress.

Animals are live trapped and released at capture site. A cotton nestlet is placed in each trap to occupy their time and to provide insulation. Sufficient food is placed in each trap for animals to maintain metabolism. Traps are covered with organic material in order to shade the trap during the day and insulate the trap at night. Despite these procedures, incidental mortality was expected by the investigator. Animals found dead are reported in Column E of the report, as they presumably suffered; for this year's report, three red-backed voles, one deer mouse, seven masked shrews, and three meadow voles were found dead in the trap.

5. Provide scientific justification why pain and/or distress could not be relieved. State methods or means used to determine that pain and/or distress relief would interfere with test results. (For Federally mandated testing, see Item 6 below.)

N/A. Objectives of the study are to test the effects of forest habitat modification to determine if small mammal abundance in the harvested treatments and near an induced edge is influenced by different forest cutting regimes; and 2) to determine how each forest treatment influences the movement of small mammals through the landscape or across an edge and examine the abiotic and biotic factors that influence these movements. Animals are marked (with a small metal numbered ear tag), sexed, and aged. Selected mammals will be marked with non-toxic fluorescent powder to mark a trail of movement. The IACUC will review these numbers.

6. What, if any, federal regulations require this procedure? Cite the agency, the code of Federal Regulations (CFR) title number and the specific section number (e.g., APHIS, 9 CFR 113.102): **N/A**

Column E Explanation

NOV 14 2005

This form is intended as an aid to completing the Column E explanation. It is not an official form and its use is voluntary. Names, addresses, protocols, veterinary care programs, and the like, are not required as part of an explanation. A Column E explanation must be written so as to be understood by lay persons as well as scientists.

1. Registration Number: **11-R-0006**

2&3. Number of animals and Species (common name) used in this study:

	Total Captures	# Found Dead	# Euthanized	# Released
Red-backed Vole	**34**	**0**	**0**	**34**
Deer Mice	**6**	**0**	**0**	**6**
Masked Shrew	**4**	**2**	**0**	**2**
TOTAL	**44**	**2**	**0**	**42**

4. Explain the procedure producing pain and/or distress.

Animals are live trapped and released at capture site. Traps are lined with plastic-bubble packing materials to prevent hypothermia. Traps are baited with rolled oats laced with peanut butter. Animals found dead are reported in Column E of the report, as they presumably suffered. The investigator indicated that the small mammals survived well in the live traps until a cold night occurred when two shrews were found dead; trapping was terminated after that night.

5. Provide scientific justification why pain and/or distress could not be relieved. State methods or means used to determine that pain and/or distress relief would interfere with test results. (For Federally mandated testing, see Item 6 below.)

N/A. Objectives of the one-year study were to attempt to determine which species of small mammals occupy several wetland habitats in the vicinity of the Orono Bog Boardwalk. The Orono Bog Boardwalk was built as a co-operative project between the University of Maine and the City of Bangor. It was designed, in part, to fulfill an environmental education role, introducing visitors to the plants, animals, and environments of the various wetland habitats in the Orono Bog. Animals were identified to species, weighed, and then released at capture site. The IACUC will review these numbers.

6. What, if any, federal regulations require this procedure? Cite the agency, the code of Federal Regulations (CFR) title number and the specific section number (e.g., APHIS, 9 CFR 113.102): **N/A**

Agency _____ CFR _____

NOV 14 2005

Column E Explanation

This form is intended as an aid to completing the Column E explanation. It is not an official form and its use is voluntary. Names, addresses, protocols, veterinary care programs, and the like, are not required as part of an explanation. A Column E explanation must be written so as to be understood by lay persons as well as scientists.

1. Registration Number: **11-R-0006**

2. Number of animals: **89**

3. Species (common name) of animals used in the study: **Harbor Seal**

4. Explain the procedure producing pain and/or distress.

Neonate pups are captured using a small boat and a 1-m diameter hoop net attached to a 2-m aluminum pole. Pups are spotted in the water with their mothers. Pup/mother pairs typically swim in straight lines; therefore, the investigator can predict when they will surface. Capture typically occurs ~5 minutes after initial sighting. An alternative capture method for a pup is to hand-capture them on ledges when the mother leaves the pup to feed. Once captured, an attempt will be made to capture the mother, so as to keep them together. If this is not possible, the research crew will make pup calls to keep the mother in the vicinity. Once aboard, pups will be placed in a nylon mesh bag and weighed using a suspended spring scale. Sex will be noted and standard length and axillary girth measurements will be obtained using a 1-m flexible tape measure. Upon initial capture, pups will be marked with a uniquely numbered flipper tag placed in the interdigital webbing of one hind flipper. A numbered pyramid head tag and a VHF radio (Lotek Wireless, Inc.: RMMT4) will be glued to the pelage atop the head with 5-minute apoxy or cyanoacrylate adhesive and accelerator (Superbonder[7] 422 Instant Adhesive and Tak Pak[7] 7452 Accelerator, Loctite). The VHF and pyramid head tags will be lost when the individual molts. Heart rates on 44 pups were recorded using a commercially available sport heart rate monitor (Polar S series) that consisted of a watch to record heart rate and a strap with sensor that went around the chest of the animal. The investigator put the strap around the pup's chest and recorded heart rate for about 30 minutes. He also recorded apneas with a digital video camera.

5. Provide scientific justification why pain and/or distress could not be relieved. State methods or means used to determine that pain and/or distress relief would interfere with test results. (For Federally mandated testing, see Item 6 below.)

Investigator follows handling procedures described in *Marine Mammals Ashore: A Field Guide for Strandings, 1993*, Geraci and Lounsbury. Geraci and Lounsbury recommend physical restraint rather than chemical immobilization. They recommend not drugging seals, but monitoring for hyperthermia. Investigators bathe the seals with water periodically to minimize risk of hyperthermia. By not drugging the seals, they can be released immediately after handling, reducing the length of stress. This activity is conducted under a permit

NOV 14 2005

issued by the National Marine Fisheries Service under the Marine Mammal Protection Act. Personnel from the National Marine Fisheries Service, USDC, SUNY Potsdam, and U.Mass-Boston are also involved in this study.

6. What, if any, federal regulations require this procedure? Cite the agency, the code of Federal Regulations (CFR) title number and the specific section number (e.g., APHIS, 9 CFR 113.102):

N/A

Agency _____ CFR _____